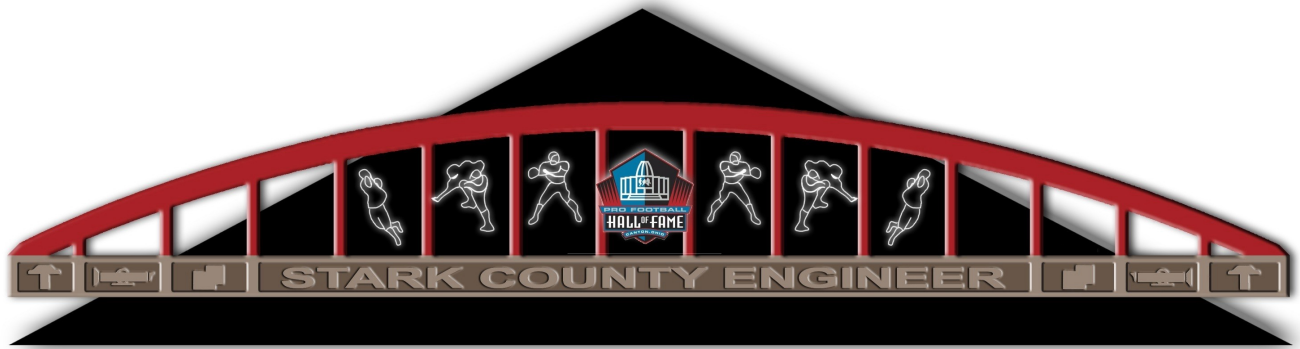


# 2011 Annual Report

## Stark County Engineer



**Keith A. Bennett, P.E., P.S.**

**Market Ave. / Lake Center St.**



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# Stark County Statistics

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## STARK COUNTY STATISTICAL DATA ROAD MILEAGE 2011

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State Roads .....	251.01
County Roads .....	409.64
Township Roads .....	1,308.43

### ELEVATIONS

City of Canton: 1,060 feet above sea level

Stark County: Highest Point – 1,360 feet above sea level, 1 mile N.E. Paris

Lowest Point – 880 feet above sea level, Tuscarawas River,  
Bethlehem Township

**NUMBER OF COUNTY BRIDGES..... 333**

**NUMBER OF COUNTY CULVERTS ..... 2,700**

**POPULATION STARK COUNTY – (2009 Estimate) ..... 379,466**

**NUMBER OF COUNTY TRAFFIC SIGNAL DEVICES..... 129**

In 1928, the County Engineer was empowered by the state legislature to be the caretaker of the County's networks of roads, bridges, culverts, drainage ditches, and natural waterways as relates to his office under the direction of the Board of County Commissioners.

The County Engineer is required to be a registered professional engineer and surveyor licensed in the State of Ohio. The precise duties of the engineer are spelled out in the Revised Code of Ohio (Section 315.08).

There are four distinct highway systems in Ohio: The Ohio Department of Transportation is responsible for the 19,000 mile state highway system; all 88 counties are responsible for the 30,000 mile county highway system; the individual townships administer the 39,000 mile township system; and the various municipalities are responsible for the streets (approximately 21,000 miles) and alleys within their boundaries. The County Engineer works with the County Commissioners and the Township Trustees to perform his various responsibilities in the following areas:

- 1) County Highways: All maintenance, repair, widening, resurfacing, reconstruction, and construction of pavements, bridges and traffic signals on the county highway system is the County Engineer's responsibility. This includes: traffic control and safety, mowing, guardrail repair and replacement, roadside drainage, and snow control.
- 2) Township Highways: The County Engineer is the engineering advisor to township trustees for the maintenance, repair, widening, resurfacing, and reconstruction of their highways. The bridges over ten feet in length on the township highway systems are the full responsibility of the County.
- 3) Municipalities: The County is responsible for many bridges within the municipalities. These bridges are further defined as all bridges on county-purpose roadways leading into and through municipalities over streams.

# From the County Engineer

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**Stark County Engineer, Keith A. Bennett, P.E., P.S.**

I completed my second full year as Stark County Engineer in 2011. It continued to be a learning experience for me. Snow removal was once again a major focus for us in early 2011. The 2010 - 2011 snow control season kicked off strong in December 2010 and continued right on into 2011. We followed the 8 year record for December salt usage (> 3800 tons) with a snowy January, February and March to end the season using over 13,000 tons spread over 52 overtime events. On a brighter note, our 2011 - 2012 season started with a mild December where we experienced 4 overtime events and used only 490 tons of salt.

Once the weather broke in the spring, we began another very busy construction season. We completed projects started in 2010 including the Belden Village signal upgrades and the Cleveland Avenue / Mt. Pleasant Street Intersection project. Construction began on two large roadway improvement projects: the Market Avenue / Lake Center Street / King Church Avenue intersections upgrades near Lake High School (completed) and the Applegrove Street / Market Avenue (SR43) improvement project (completion Spring 2012). Our office also completed the replacement or rehab of nine bridges / box culverts during 2011. Most notably were the replacements of the Broadway Avenue Bridge, the Kemary Avenue Bridge and the Mount Eaton Street Bridge. We were also faced with installing a temporary truss structure on 55th Street. This bridge is scheduled for replacement in 2013 but the existing abutments became undermined affecting the stability of the bridge. Fortunately, our department had a temporary bridge in our yard that could be utilized to keep the road open until the replacement is constructed.

We also focused attention on road maintenance in 2011. We were able to pave over 40 miles of road using a combination of hot mix and cold mix asphalt as well as chip and seal. We also continued to control paving costs by utilizing our own crews to spot pave and repair some limited areas. Our Maintenance Department also replaced several front line plow trucks and tandems.

2011 also brought the advent of Utica Shale natural gas development to Stark County. A significant amount of effort was put forth to develop a Road Use Maintenance Agreement between the County and Chesapeake Energy in an attempt to protect Stark County roads. The RUMA will be used as a model for agreements with other gas drilling companies as the Utica Shale play continues to grow. The agreement with Chesapeake led to the reconstruction / resurfacing of over 6 miles of road during 2011. Indications are that the natural gas industry will be spur significant development in Stark County in the coming years.

As we move forward, the Stark County Engineer's Department faces many challenges. Most importantly is a revenue stream that remains fairly constant from year to year while the cost for materials, equipment and labor continue to rise. Our staff is constantly looking for effective ways to get the most for our money. However, without an increase in funding mechanisms or changes to the methods of financing highway departments it will be increasingly difficult to maintain our transportation infrastructure.

# Engineering Department

**Dave Torrence, P.E., P.S.**

In 2011 the Engineering Department of the Stark County Engineer's Office completed the following projects and activities:

## **Pavement Program**

H1-H2 (2011) Resurfacing Contracts: Approximately 43.9 miles of County Highway were resurfaced using hot mix, cold mix, and/or chip and seal at a cost of \$2,623,733.85. **Funding for this work was provided partially by the \$10 permissive License Tag Fee enacted in 2007**, and grants totaling \$250,000 from Ohio Public Works Commission (OPWC) and the EPA. The work was performed by Central Allied Enterprises and Lytle Construction and included the following County Highways:

Hot Mix Asphalt – Carmont Ave., Vine St., Broadway Ave., Orchard View Dr., Indian Run Ave., and Lynnhaven/Oakhill Ave. – 15.3 miles

Cold Mix Asphalt – Ridge Ave., Farber St., Alabama Ave., Robertsville Ave., Reeder Ave. Blough Ave. – 16.1 miles

Chip and Seal – Price St., Pigeon Run Ave., Pontius St., Strausser St., Mapleton/Crestlawn St. and Paris Ave. – 12.5 miles

Also included in the roads listed above are roads that were paved by private industry as part of the Marcellus/Utica Shale Play that began in Stark County in 2011. The roads paved included sections of Pontius St., Orchard View Dr., Indian Run Ave., and Lynnhaven/Oakhill Ave. A total of 6.83 miles of county highway were paved with Hot Mix Asphalt in this manner.

## **Capital Improvements Program**

Projects Completed:

Belden Village Signals - Replacement of six (6) traffic signals and coordination in Belden Village

Cost: \$ 835,050.00

Contractor: Perram Electric

Market Ave./ Lake Center St./Woodland St. - Upgrade of 3 intersections in Lake Township

Cost: \$ 2,087,523.96

Contractor: Central Allied Enterprises

## **Grants Received in 2011:**

<u>Project</u>	<u>Total Cost</u>	<u>Grant Received</u>	<u>Grant Source</u>
Howenstine Ave. Bridge	\$ 1,732,450	\$ 1,385,960	CEAO
Paris Ave. / Easton St.	\$ 1,700,000	\$ 810,400	CEAO
Safety Study (Sign Upgrade)	\$ 20,000	\$ 16,000	CEAO
Safety Study (Intersection)	\$ 10,000	\$ 9,000	CEAO
Safety Study (Speed Zone)	\$ 16,000	\$ 14,400	CEAO
Dressler Road Paving	\$ 537,000	\$ 150,000	OPWC
Lake O Springs Paving*	\$ 696,692	\$ 150,000	OPWC
55th St. Bridge Project	\$ 2,733,637	\$ 866,637	OPWC
Frank Ave. Phase 2	\$ 3,142,940	\$ 1,500,000	OPWC
Baum Ave. Bridge	\$ 730,000	\$ 600,000	OPWC
Ridge Ave. Paving	\$ 225,000	\$ 100,000	EPA

\*Jackson Twp. is lead agency for this project

**TOTAL HIGHWAY GRANTS AND LOANS RECEIVED in 2011 = \$ 5,602,397**

These grants will be used in the coming years to construct the above projects. Without these grants, these projects would not be possible.

# Bridge Department

**Scott Basinger, P.E.**

## *Responsibilities*

The Bridge Department at the Stark County Engineer's office maintains 333 bridges located throughout the County. All bridges spanning 10 ft. or greater on County and Township roadways are our responsibility, along with approximately 200 larger culverts spanning 4-10 ft. on County roadways.

An important tool in evaluating the condition of these bridges is our annual bridge inspection program. As mandated by law, every structure with a span of over 10 ft. is inspected yearly. These inspection reports are reviewed by the Bridge Engineer, and then they're forwarded to the Ohio Department of Transportation. Bridges that were poorly rated are evaluated for possible future replacement or rehabilitation. Using this process, a comprehensive future bridge program is developed, with the most needy structures being repaired first. Additionally, the smaller culverts that are our responsibility get inspected at three year intervals.

Other responsibilities of the Bridge Department include the maintenance of all guardrail along County roadways and the issuance of any special hauling permits for oversize and overweight trucks traveling on our County road system. Our guardrail duties include repairing railing damaged by automobile accidents, replacing dilapidated railing, and installing new guardrail where needed. Much of this work is completed during winter months when bridge construction isn't feasible. The purpose of our hauling permits is to ensure that no severely overloaded trucks cross our bridges or further damage our roadways.

## **Condition of Stark County Bridges**

The following is a breakdown of the results of our most recent inspection of Stark County's bridges:

<u>RATING</u>	<u>NO. OF BRIDGES</u>	<u>RATING</u>	<u>NO. OF BRIDGES</u>
9(new)	6	5(minor rehabilitation)	77
8(good)	10	4(major rehabilitation)	32
7(minor maintenance)	84	3(critical)	12
6(major maintenance)	112		

This report shows that many of our bridges are nearing the point where they will need to be replaced. We have secured Federal funding so that several of the larger bridges can be re-built in the near future, and we need to continue to find funding sources to be able to fiscally live up to our responsibilities as the caretaker of Stark County's bridges. In 2011, following a large storm, we had to close one bridge and install a temporary replacement bridge which was posted for reduced truck loads. We currently have a total of five bridges posted for reduced load carrying capacity and as we complete load rating analyses of our bridges, additional structures may require load posting.

## **2011 Projects Summary**

In 2011, the following bridge projects were completed:

<u>Bridge No.</u>	<u>Roadway</u>	<u>Type</u>	<u>Contractor</u>	<u>Cost</u>	<u>Outside Funding</u>
NI-31-37	Broadway Ave.	Steel Beams	Wolf Creek Eng.	\$ 727,146	\$ 690,789 (FED LBR)
PE-34-37	Kemary Ave.	Prestressed Box Beams	Wolf Creek Eng.	\$ 354,286	\$ 283,429 (SCATS)
SU-15-7	Mt. Eaton St.	Steel Truss	Ohio Bridge	\$ 226,940	\$ 186,318 (OPWC)
JA-1-1	Mt. Pleasant St.	Precast Concrete Box	Stanley Miller	\$ 214,518	\$ 198,858 (OPWC, Summit Co.)
BE-16-32	Blough Ave.	Deck Rehab	Bridge Overlay	\$ 88,594	
JA-4-11	Mt. Pleasant St.	Prestressed Box Beams	SCE	\$ 120,193	
OS-32-33	Indian Run Ave.	Prestressed Box Beams	SCE	\$ 71,682	
SA-4-20	Chapel St.	Prestressed Box Beams	SCE	\$ 68,821	
PE-36-66	Fohl St.	Precast Concrete Box	SCE	\$ 46,561	

## **Miscellaneous Projects**

Various Guardrail repairs & Installations	SCE	\$ 73,919
Miscellaneous Structural Repairs	SCE	\$ 28,091
Logjams	SCE	\$ 19,808
Erosion/Scour Repairs/Miscellaneous other	SCE	\$ 16,903

Total Work completed by Stark County Bridge Crews: \$ 445,978

Amount Reimbursed by Townships, Insurance Agencies, etc.: \$ 19,198



# Budget Department

Madeline Meskiel, Budget Officer

The fiscal department provides oversight, control and management of all budgetary functions for the organization. It is responsible for the handling of requisitions, purchase orders, payment for the goods and services, payroll and benefits. It also monitors proper accounting controls to insure efficient operation of the Engineer's office. These controls include operational efficiency and compliance with established and accepted government accounting policies and principals. In addition to those typical accounting functions this department is involved in inventory control, asset accounting, cost accounting, budget management and finance planning. Many of these functions are in coordination with the Office of the County Auditor.

REVENUE AND EXPENDITURES FOR ANNUAL REPORTS						
REVENUE	2011		2010		2009	
License Plate Fee	\$7,483,143.00	47.59%	\$7,508,806.00	47.89%	\$7,419,290.00	50.05%
Permissive Fee	\$3,773,590.00	24.00%	\$3,824,847.00	24.39%	\$3,746,406.00	25.27%
Gasoline Tax	\$2,310,207.00	14.69%	\$2,366,745.00	15.09%	\$2,331,703.00	15.73%
Intergovernmental Funding	\$2,016,305.00	12.82%	\$1,835,530.00	11.71%	\$1,174,973.00	7.93%
Inv. Income and Misc Fines/Fees	\$140,174.00	0.90%	\$144,657.00	0.92%	\$151,240.00	1.02%
Total Revenues	\$15,723,419.00	100.00%	\$15,680,585.00	100.00%	\$14,823,612.00	100.00%
EXPENDITURES						
Capital Outlay (Proj/Equip & Veh)	\$4,914,297.00	32.14%	\$4,750,956.00	30.99%	\$3,401,155.00	24.51%
Supplies and Materials	\$2,250,594.57	14.72%	\$2,198,725.00	14.34%	\$1,708,804.00	12.31%
Payroll	\$4,869,551.00	31.85%	\$5,063,823.00	33.03%	\$5,224,193.00	37.65%
Employee Benefits	\$2,094,156.00	13.70%	\$2,179,201.00	14.22%	\$2,521,623.00	18.17%
Contract Services & Misc	\$1,159,566.00	7.59%	\$1,136,735.00	7.42%	\$1,021,162.00	7.36%
Total Expenditures	\$15,288,164.57	100.00%	\$15,329,440.00	100.00%	\$13,876,937.00	100.00%







# Highway Department

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**Brian Wise P.E. P.S., Highway Maintenance & Construction**

The Highway Department is the largest of the Stark County Engineer's departments and is responsible for maintaining approximately 415 miles of roadway. The duties of the Highway Department can vary depending on the season and weather conditions. Spring is usually when we perform the most asphalt patching however patching is a function we perform all year long. Crack sealing is done until late fall, depending on temperature. Summer is the season for spot paving and repair, mowing and berm grading.

This winter season required the highest salt usage in recent record with a total of 13,557.96 tons and a total cost (2010-2011 season) of snow and ice control operations of \$1,321,851.18. December, 2010 broke an eight year record for salt usage at 3,843.84 tons.

Winter is our busiest season. When it is determined that attention is needed due to approaching snow or ice, the Highway Superintendent starts to call out our personnel. Within 30 minutes we have a total of 23 trucks on the road dispatching from five different locations across the County. The Engineer's Office is quite proud of our snow control operation and the 49 drivers and 5 mechanics that make it so successful.

This year was one of the wettest on record which required additional mowing, arm mower and tree/brush clearing to keep up with rapidly growing vegetation. The combined cost of these activities performed by County forces was \$232,007.95.

In-house spot paving and wedging was performed with our new paver for a total cost of \$117,084.22 on various sections of County roads and bridge decks.

Guardrail spraying was subcontracted this year to DeAngelo Bros. who treated all County guardrail with two applications of herbicide, once in June and again in August at a total cost of \$24,104.08.

Patching	\$736,102.45	Crack Sealing	\$109,393.17
Berm Grading	\$73,769.84	Mowing	\$76,040.82
Machete Mower	\$50,627.82	Tree Trimming	\$104,554.03
Snow Control('10-'11)	\$1,321,851.18	Spot Pave/Repair	\$117,084.22
Sweeping	\$29,463.79		

The Highway Department performed \$2,459,105.53 in maintenance work on County highways in 2011.

# Hydraulics Department

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Gary Connor P.E. P.S., Hydraulic Engineer

The Hydraulics Department coordinates all drainage improvements on County highways including roadside ditches, culverts, storm sewers and other drainage related issues.

In 2011, we again administered the Stark County Commissioners Drainage Program which was reduced drastically from the previous year. We completed eighteen drainage projects ranging from storm sewer replacements to log jam removals for which we were reimbursed \$60,277.16 from the General Fund.

## 2011 Cost Summary:

Culverts and Storm Sewers	105 Projects	\$503,343.88
Road Side Ditch Improvements	42 Projects	\$ 83,920.53
Yard Work & Equipment Maint.	5 Projects	\$ 60,450.28
Landscaping (on previous projects)	9 Projects	\$ 16,699.51
Log Jam Removal	5 Projects	\$ 3,346.94
Repair Slips/Slides	1 Projects	\$ 502.68
Channel Cleaning	7 Projects	\$ 14,038.24
Clearing Right Away Obstruction	0 Project	\$ 0.00
Sewer Jet Operations	80 Projects	\$ 15,454.57

## **TOTAL OF ALL STARK COUNTY ENGINEERS**

**OFFICE HIGHWAY DRAINAGE WORK** **\$697,756.56**

**TOTAL 2011 HYDRAULICS DEPARTMENT WORK** **\$758,033.79**

# Maintenance Department

Steve Gronow, Maintenance Superintendent

2011 EXPENDITURES	\$
<b>Fleet</b>	
Equipment	98,569.49
Fuel	384,103.97
Parts	215,031.07
Tires	18,831.10
Equipment	585,007.03
<ul style="list-style-type: none"> <li>2 tandem cab &amp; chassis w/ hook lift hoist &amp; snow package, \$335,394.</li> <li>Bobcat, \$30,024</li> <li>Machete Mower, \$86,663</li> <li>Used Paver, \$46,678</li> <li>Ford Escape, \$18,442</li> </ul>	
<b>TOTAL: Fleet</b>	<b>1,301,542.66</b>
<b>Building &amp; Grounds</b>	
Janitorial	28,938.12
Major Building Improvements	113,118.00
<ul style="list-style-type: none"> <li>Alabama Salt Shed Roof</li> <li>Alabama Trench Drain</li> <li>Main Garage Bldg A, Roof Repair</li> <li>Emergency Bathroom Repair</li> </ul>	
NPDES Compliance	112,864.91
Operations	205,322.61
<ul style="list-style-type: none"> <li>Parking Lot Repair</li> </ul>	
<b>TOTAL: Buildings &amp; Grounds</b>	<b>460,243.64</b>
<b>TOTAL: Maintenance Department</b>	<b>1,761,786.20</b>



The used 2006 Lee Boy Model L8515T Paver Pictured from the Highway Department from right to left are Gary Hoslar, Jim Rohr, and Dan Pope.



Tim Eberhart (Mechanic) repairs a broken wheel hub out on the job.



In 2011, the Bridge Department Crew assembled our street sweeping drying facility in compliance with our NPDES program



In 2011, Alabama Roof Restoration Project was started by Architectural Roofing of Louisville and it was completed in February of 2012.

The Fleet Maintenance Department is responsible for the maintenance of five buildings located in Stark County, and over one-hundred and forty pieces of equipment that includes dump trucks, pickups, mowers, autos, vans, graders, loaders, rollers & miscellaneous excavation maintenance equipment.

Our staff consists of a Superintendent (Stephen Gronow), Garage Supervisor (Dale Schemansky), a clerk (Roger McNary), 5 mechanics (Sullivan Cammel, Steve Belopotosky, Rick Campbell, Tim Eberhart, & Jeff Pisani), and a utility worker (Stephen Calabretta).

This year, the Fleet Department was able to add two tandem swap loader dump trucks, a Bobcat, a Machete Mower, a used Lowboy Paver and a Ford Escape utility vehicle to our aging pool of vehicles.

In Buildings & Grounds, our staff was able to complete Phase II of our NPDES program, the Alabama Roof Restoration Project & Floor Drain Repair, numerous painting/repair projects and an emergency bathroom repair.

# Safety and Health Department

**Steve Gronow, Safety Officer**



**2011 Safety Committee**

Palmer Shankle, Ron Steffen, Dan Pope, Tim Eberhart, Joe Kennedy, Keith Bennett, Wayne Taylor, Jim Reed, Dan Hughes, Brian Cole, and Steve Gronow

The Stark County Engineer's Office Occupational Safety and Health Program is managed by the Stark County Engineer, the Stark County Engineer's Safety Compliance Officer & the Stark County Engineer's Safety Committee. The Safety & Health Department is responsible for the program administration (conducting enforcement inspections, & adoption of safety standards) and Security Operations within our organization.

The Safety & Health Department's mission is to ensure every worker at the Engineer's Office a safe and healthy workplace. This involves the application of set guidelines including standard operating procedures and training, enforcement, compliance assistance, and outreach that directs management and employees to maintain a secure and beneficial workplace.

The Safety & Health Department's vision is to be a leader in occupational safety and health. Our program strives and continues their effort to eliminate workplace injuries, illnesses, and deaths so that all of our workers can return home safely. Our department and employee's understand that to support this vision, the workplace must be characterized by a genuine, shared commitment to workplace safety by both employers and workers, with necessary training, resources, and support systems devoted to making this happen.

The Stark County Engineer's Safety and Health Strategic Plan core direction will continue to include our two main goals:

Reduce occupational hazards through a hazard assessment & compliance inspections and

Promote a safety and health culture through compliance assistance, outreach, cooperative programs and strong leadership.

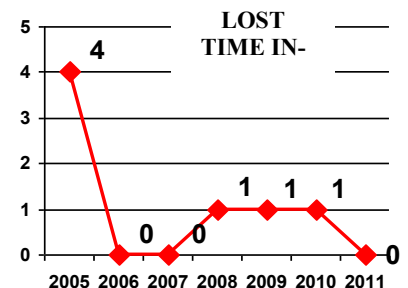
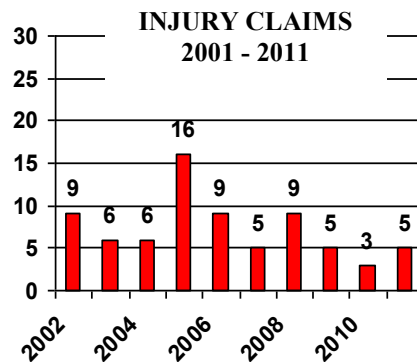
## Continued Safety Excellence

The Engineer's Safety & Health Program is a proven safety leader within the county and its safety performance ranks among the best in Ohio, not only for government highway construction companies but also among all industries. In 2011, "Target Zero" was achieved by our staff. The target zero was a campaign initiated by the committee in 1995 by our staff to have no lost time injuries with in the year. Over the last six years, we have achieved this phenomenal goal three times, and have achieved the goal once again in 2011. Way to go employees!

The Stark County Engineer's goal is to maintain a trend of continual improvement in health, and safety performance. The direction is one of the fundamental elements upon which our business success is based. Our management vision statement and guiding principles continue to give direction to all the Engineer's health and safety activities.

**2011 Safety Expenditures**

Item	\$
Damage Claims	4,915.54
Employee Safety	29,401.13
Radio Upgrades	29,484.90
Security Contract	113,304.57
<b>Total</b>	<b>177,106.14</b>



# Survey Department

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**Dan Houck P.S., Chief Surveyor**

The Survey Department provides vital survey data for bridge, roadway and public land projects. The Department has a current staff to 4 full-time personnel, including a Professional Surveyor, a Survey Intern and two Technicians. In addition to surveying for county projects, the Survey Department also assists the seventeen townships within Stark County with survey related matters which accounted for 15 project request. (i.e., stake right-of-ways, drainage, roadway vacations ...). The following is a cross section of some of the duties performed by this department in calendar year 2011.

Annexations are reviewed by this department to advise the County Commissioners on the accuracy of developments planned or scheduled drainage and traffic for the territory being annexed. A total of four annexations were reviewed by the Survey Department in the calendar year 2011.

The Survey Department also coordinates road vacations with the County Commissioners. A road vacation involves the return of public roadways, improved or unimproved, back to private domain for future use or development. The Survey Department prepared and reviewed 19 petitions for vacation in the calendar year of 2011.

During the year of 2011, the survey field crews have been involved with topographic surveys for County road improvement projects, township road R\W requests, On and Off-Road Hydraulics projects, Section Corner recovery requests, topographic surveys and layout for bridge replacements.

As part of the Section Corner Recovery project, the department has recovered and located existing section corner monuments in Pike Township. We have also published the positions of section corners in Onsburg Township.

## **Right-of-Way Department**

The duties of the Right-of-Way Department are to verify exiting easements and agreements from individuals or corporations as necessary. These instruments are used to facilitate the execution of road, bridge, drainage construction and maintenance projects.

Daily inquires are handled from individual landowners, township trustees, city or village engineers, local surveying and engineering firms, lawyers, researchers, and utility companies regarding the inventory of existing and proposed county easements and ownership.

Major projects either completed or in progress for 2011 are as follows:

<b>Project</b>	<b>No. of Parcels Negotiated</b>	<b>Right of Way Costs</b>
Hills and Dales Phase 1	34	\$ 866,331
Frank Ave Phase 1	18	\$ 440,618
Bridge CA-21-4 (Mill St)	6	\$ 23,465
Bridge BE-16-21 (Riverland)	9	\$ 31,155
Trump / Georgetown Intersection	17	\$ 194,420



# Traffic Department

**Brian Cole P.E., Traffic and Highway Engineer**

The Traffic department has three main areas of maintenance responsibility on County roads: Traffic Signals, Pavement Markings and Roadway Signs.

At the end of 2011, the Engineer's Office had 91 Traffic Signals (3 Fire & 2 School Signals), 21 Overhead Flashing Beacons, 16 School Flashers, and 5 Flashing Warning Signs on inventory for a total of 133 electrical traffic control devices. The Traffic Department has a very important duty of maintaining these devices throughout the County.

## Annual Long-Line Pavement Marking Program

The annual long-line pavement-marking project was bid as Item 642, Traffic Paint material and awarded to Mar-King Construction, Inc. The contract amount was \$167,287. They completed 140 miles of center line and 270 miles of edge line.

## 2011 Sign Upgrade Program

As part of the Federal Highway Administrations requirement for maintaining minimum levels of retroreflectivity for traffic signs, the Engineer's Office has implemented an annual sign upgrade program to replace non-compliant traffic signs on County Roadways. The 2011 program was awarded to Osburn Signs for \$24,388. County traffic crews installed a total of 744 signs which included various Regulatory and Warning signs.

2011 Traffic Department expenditures are broken down as follows:

		SCE Cost	Funding	Contractor/Company
<b>63000</b>	<b>Materials</b>			
	Pavement Marking Materials	\$33,779		
	Sign Materials	\$14,495		
	Signal Materials	\$19,880		
	Barricades/Lights/Batteries	\$ 2,049		
	Misc. Shop Supplies	\$ 7,835		
	Materials Total =	\$78,038		
<b>63500</b>	<b>Equipment</b>			
	Graco Grind Lazer	\$ 5,689		Sherwin Williams
	Equipment Total =	\$5,689		
<b>64000</b>	<b>Contract Services</b>			
	2011 High Hazard/Crash Data Update (PID 89455)	\$ 1,450	\$13,047 (CEAO Grant)	TSASS, Inc.
	2011 Sign Upgrade Program (PID 91513)	\$ 4,878	\$19,510 (CEAO Grant)	Osburn Signs
	2011 Signal Conflict Monitor Testing	\$ 8,800		Lampion Companies
	Signal Service Contract	\$ 2,934		W. W. Schaub Electric
	Contract Services Total =	\$18,062	\$32,557	
<b>65500</b>	<b>Contract Projects</b>			
	T-1-2011, Pittsburg / Orion Traffic Signal	\$20,903		W. W. Schaub Electric
	T-2-2011, Signal Upgrade Project	\$12,000		Path Master, Inc.
	T-3-2011, 642 Long Line Pavement Marking	\$167,287		Mar-King Construction, Inc.
	T-4-2011, Gambrinus / Marathon Main Gate Flasher		\$20,200 (Marathon)	W. W. Schaub Electric
	T-5-2011, Glenoak H.S.(Easton St.) School Flasher	\$19,893		W. W. Schaub Electric
	Contract Services Total =	\$76,834	\$20,200	
	<b>TOTALS :</b>	<b>\$225,772</b>	<b>\$52,757</b>	



